

REMARKS

The Examiner checked the box on the cover sheet indicating that the Office Action dated March 18, 2003 was a final rejection. However, Applicant's attorney of record called the Examiner and left a voicemail inquiring as to whether or not it was intended that this action be made final. The Examiner responded leaving a voicemail indicating that it was not intended that the Office Action dated March 18, 2003 be final, and that Applicant could make amendments as needed.

As amended, the present application includes independent claim 1 (from which claims 2-8 depend); independent claim 9 (from which claims 10-13 and 15-17 depend); and independent claim 18 (from which claims 20-25 depend).

The Examiner quoted 35 U.S.C. § 112, but did not make any rejection based upon this statute. Accordingly, Applicant has not responded to any 35 U.S.C. § 112 rejections.

The Examiner also quoted 35 U.S.C. § 102 without making a rejection, and therefore there is no response in this Amendment under 35 U.S.C. § 102.

The Examiner rejected claim 1, citing the Chiang (WO 99/53505) in view of Abe et al. The Examiner also rejected claim 1 citing JP 6283301 in view of Hashimoto, or as an alternative, further in view of Claypool. The Examiner made a further rejection of the claims as being unpatentable over JP 6283301 in view of Hashimoto further in view of Nakamura et al.

However, the Examiner's rejection of the claims is based upon a misunderstanding and misapplication of the cited references. Claim 1 as amended requires that an end cap and a second end cap both being "electrically connected to the film resistive element." The claim further requires a first nickel barrier electrically connecting the end cap of the first end surface of the first film resistor and the first end surface of the second film resistor. The claim also requires a

second nickel barrier electrically connecting the second end cap on the second end surface of the first film resistor and the second end cap on the second end surface. Thus, the barriers provide electrical connection of the two resistors (designated 12 in the drawings), so that they are in parallel with one another.

In contrast, none of the references cited by the Examiner show this feature. The Chiang reference in Figure 3 shows two electrical connectors 31, 51 at the opposite ends of the resistor. However, these two electrical connectors 31, 51 are not electrically connected to one another and are not electrically connected to a single resistive element as required by the claims. They are not in parallel, and in fact, they are not even connected. In Figures 5 and 6 the Chiang reference shows that the indentations 31, 51 are meant to contain these connectors, but again these two connectors 31, 51 are not electrically connected to each other, do not electrically connect resistance elements in parallel and are not connected to a single electrical resistance element as required by claim 1.

Similarly, the Abe reference cited by the Examiner shows first and second barrier elements 8 which are connected at the opposite ends of the resistor. However these barriers 8 are not electrically connected to a single resistive element extending there between as required by the claims. Instead, the element 8 on the right hand side of Figure 2 is connected to the lower most resistive elements 2c, 3c, and 4c. The barrier 8 on the left hand side is connected to the upper resistance elements 2b, 3b, and 4b. Thus the barriers are not connected to end caps which are connected to the opposite ends of a resistor as required by claim 1. The barriers 8 do not connect the resistive elements in parallel and in fact do not connect them together at all.

The Examiner also cited the Japanese reference 6283301. This reference also fails to disclose the structure identified above. This Japanese reference discloses end elements 11b, 12b

at one end of the device and resistance elements 11c, 12c at the opposite end of the device. These are clamped together by means of clamps 13. However, there is no electrical connection between the two clamps 13 at the opposite ends of the resistor. Thus, the two end clamps 13 are not connected as the barriers are required to be in claim 1 to two end caps which are in turn connected to the opposite ends of a film resistive element as required by claim 1. Accordingly, the Japanese reference 6283301 fails to show the claimed invention.

The Examiner also cited the Hashimoto reference. Applicant has obtained an English translation of this reference in its entirety, and attaches this English translation to the present Amendment. Nowhere in this Amendment is there any disclosure that these resistive elements shown in the Hashimoto reference could be stacked upon one another. The Examiner states "finally the chips of Hashimoto suggest stacking where they are greater in height than the middle so that they can be flipped or stacked." There is no mention or suggestion whatsoever in the enclosed English translation of stacking in the Hashimoto reference. If the Examiner relies upon Hashimoto as showing stacked resistance elements, then the Examiner should be able to point to some language in the Hashimoto reference (using the English translation attached hereto) which suggest to one skilled in the art that these resistive elements may be stacked. There is no such suggestion and therefore Hashimoto fails to show what is required by claim 1. Furthermore, there is not showing of a clamp which is connected between two separate resistive elements on two separate substrates. The elements 9 of the Hashimoto reference comprise end caps, but they do not show barriers as required by claim 1. Accordingly, the Hashimoto references does not disclose stacking or barriers in the manner required by claim 1.

The Examiner has also cited the Claypool reference. However, the Claypool reference also fails to show end caps or barriers which are electrically connected to a single resistive

element. End cap 26 of Claypool is at the right end of the device 10 and is connected to one series of resistive elements, and the end cap 26 at the opposite end is connected to a second separate group of resistive elements. There is no electrical connection between the two end caps 26.

Accordingly, claim 1 patentably distinguishes over the references cited by the Examiner, since none of these references disclose end caps on each of the two separate resistance bodies, each being connected to a single resistor and each providing an electrical connection to the same resistor as required by claim 1. Furthermore, none of the references show barriers connected to the first and second end caps to create a parallel connection. Accordingly, claim 1 is patentable over the cited art and should be allowed.

Claims 2-8 depend from claim 1 and are patentable for the reasons set forth as to that claim.

Claim 9 is an independent claim which as amended requires first and second end caps on each of the two substrates connected to a single film resistive element. Claim 9 also requires first and second metal barriers being "electrically connected to" the end caps of both of the two first and second film resistors. As explained above with respect to claim 1, none of the prior art cited by the Examiner shows this arrangement and therefore claim 9 is patentable in view of the cited art. Claims 10-13 and 15-17 depend from claim 9 and are patentable for the reasons set forth as to that claim.

Claim 18 requires first and second end caps each being an electrical terminal connected to the thick film resistive element. Claim 18 also requires first and second nickel barriers interconnecting the end caps of the two resistive elements. As explained above with respect to claims 1 and 9, these features are not shown or suggested in any of the prior art.

Claims 20-25 depend from claim 18 and are patentable for the reasons set forth as to that claim.

In view of the foregoing, Applicant respectfully requests that a Notice of Allowance be issued allowing all the claims presently in the application. If prosecution of the present application can be facilitated by a telephone interview, Applicant invites the Examiner to telephone Applicant's attorney at the below identified number.

No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Respectfully submitted,



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